

Prostate Cancer:

The Public Health Perspective

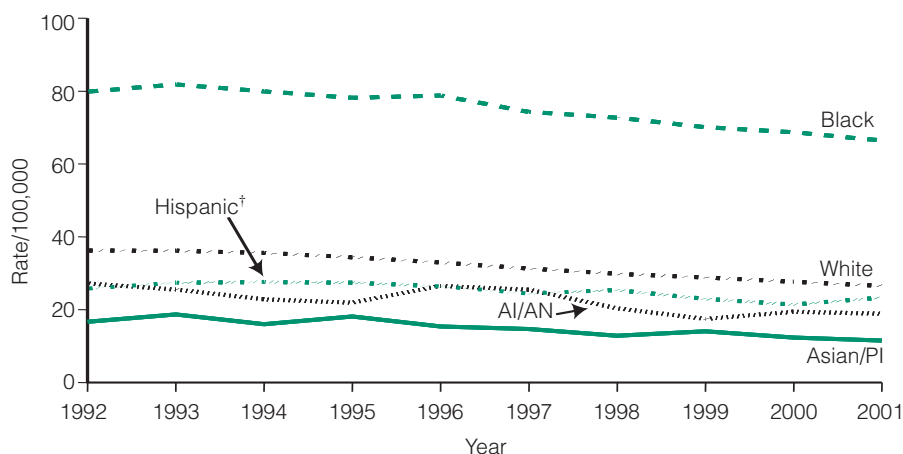


A Public Health Concern

Prostate cancer is the most common form of cancer among men in the United States, other than skin cancer. In 2004, approximately 230,110 new cases of prostate cancer will be diagnosed and 29,900 men will die of the

disease, according to the American Cancer Society. Prostate cancer is the second leading cause of cancer deaths of men in the United States, after lung cancer, and the sixth leading cause of death of men overall.

Prostate Cancer Death Rates* by Race/Ethnicity, United States, 1992–2001



*Rates are per 100,000 and are age-adjusted to the 2000 U.S. standard population.

†Hispanic and non-Hispanic are not mutually exclusive from White, Black, American Indian/Alaska Native (AI/AN), and Asian or Pacific Islander (Asian/PI).

Source: National Center for Health Statistics (NCHS).

Prostate Cancer

- More than 70% of all diagnosed prostate cancers are found in men aged 65 years or older.
- Trends in mortality rates for prostate cancer by race/ethnicity in the United States indicate that death rates for prostate cancer have decreased for all racial/ethnic groups.
- African-American men die of prostate cancer more often than any other racial/ethnic group.
- In contrast to other racial/ethnic groups, Asian/Pacific Islander men experience some of the lowest rates of incidence and mortality.
- The reasons for the variation in incidence and mortality among different racial/ethnic groups are unknown.

The Facts

Source: American Cancer Society, *Cancer Facts and Figures 2004*.

Can Prostate Cancer Be Prevented?

Researchers are trying to determine the causes of prostate cancer and whether it can be prevented. They do not yet agree on the factors that can influence—either positively or negatively—a man's risk of developing the disease. Some of the factors under study include

- Herbal supplements.
- Lycopene (an antioxidant abundant in red tomatoes and processed tomato products).
- Diets high in animal fat or low in fruits and vegetables.
- Vitamin E or selenium.
- Men's hormone levels.

What Is Known About the Effectiveness and Benefits of Prostate Cancer Screening?

The two most common tests used by physicians to detect prostate cancer are the digital rectal examination (DRE) and the prostate-specific antigen (PSA) test. For DRE, which has been used for many years, the physician inserts a gloved finger into the rectum to feel for prostate gland irregularities. The PSA test is a blood test that measures the prostate-specific antigen, an enzyme produced only by the prostate.

Although there is good evidence that PSA screening can detect early-stage prostate cancer, evidence is mixed and inconclusive about whether early detection improves health outcomes. In addition, prostate cancer screening is associated with possible harms. These include anxiety and follow-up procedures based on frequent false-positive test results, as well as the complications that may result from treating prostate cancers that, if left untreated, might not have affected the man's health.

Since current evidence is insufficient to determine whether the potential benefits of prostate cancer screening outweigh its potential harms, there is no scientific consensus that such screening is beneficial. Following is the position of the Centers for Disease Control and Prevention (CDC) in regard to prostate cancer screening:

- CDC promotes informed decision making, which occurs when an individual understands the nature and risks of prostate cancer; understands the risks, benefits, and alternatives to screening; participates in decision making at a level he desires; and makes a decision consistent with his preferences and values or defers the decision to a later time.
- CDC supports shared decision making, which is a process carried out between a patient and his health care professional in the clinical setting where both parties share information and the patient understands the nature and risks of prostate cancer; understands the risks, benefits, and alternatives to screening; participates in decision making at a level he desires; and makes a decision consistent with his preferences and values or defers the decision to a later time.
- CDC does not recommend routine screening for prostate cancer because there is no scientific consensus on whether the potential benefits outweigh the potential harms.

CDC Activities Targeting Prostate Cancer

With \$15.5 million appropriated to prostate cancer activities in fiscal year 2004, CDC is

- Conducting research and developing materials on how to communicate information and promote informed decision making about prostate cancer screening.
- Enhancing prostate cancer data in cancer registries, especially information on the stage of disease at the time of diagnosis, quality of care, and race and ethnicity of the man diagnosed with prostate cancer.

- Sponsoring research on whether screening for prostate cancer reduces deaths caused by the disease and on knowledge and awareness of prostate cancer screening among men and health care providers.
- Providing funding to states, tribes/tribal organizations, and U.S. territories for prostate cancer activities identified in their comprehensive cancer control plans.

These activities will further efforts to develop and deliver appropriate public health strategies for prostate cancer and will improve information sharing between providers and their patients related to screening.

Research Supported by CDC

Making Informed Decisions About Screening

CDC is funding the University of California at San Diego to conduct intervention research on informed decision making and prostate cancer screening. A randomized trial will compare two Internet-based approaches for helping men decide whether to be screened for prostate cancer using the PSA test. This study, scheduled for completion in the fall of 2005, will help to provide much-needed information about how to facilitate informed decision making.

Four projects targeting professional education were funded in 2003: two at Baylor College of Medicine, one at the University of Texas Health Science Center at San Antonio, and one at the University of California. The purpose is to develop and disseminate educational materials, derived from current evidence, that give primary care professionals the information they need to help their patients make informed decisions about prostate cancer screening. The materials will provide information about screening, factors that influence health outcomes, and options for managing the disease. They will be developed in multiple formats to accommodate differing learning preferences among providers, and Web-based technology will be used to maximize access to and dissemination of the materials.

CDC is funding the Research Triangle Institute to conduct a community-based intervention project to help men make informed decisions about prostate cancer screening. The multifaceted intervention will include written educational materials, physician lectures, video vignettes, and skill-building training sessions. The tools are designed to 1) conceptualize screening as a decision, 2) improve men's knowledge of prostate cancer screening, 3) assist men in clarifying their value system, and 4) facilitate the development of decision-making skills. The project is scheduled for completion in the fall of 2005.

Development of Educational Materials

CDC is expanding its series of educational materials about prostate cancer screening with a new educational CD-ROM. This product is designed to foster dialogue between patients and physicians and to help men aged 50 or older make informed decisions about prostate cancer screening. The CD-ROM is an enhanced, interactive version of CDC's consumer-oriented brochure, *Prostate Cancer Screening: A Decision Guide*. The new version will feature interactive tools that, for example, display prostate cancer risk by age and ethnicity and show where prostate cancer ranks among causes of death for

Studying Patterns of Care

CDC's National Program of Cancer Registries is funding eight state cancer registries to study patterns of care for cancer patients, including those with a diagnosis of prostate cancer. This research will collect detailed clinical information (e.g., stage at diagnosis, disease characteristics, treatment received) on a random sample of prostate cancer patients whose cancers were diagnosed in 1997 and followed for 3 years. Data collection will be completed by the fall of 2004.

Developing Screening Assessment Tools and Methods

The University of Alabama at Birmingham has received funding to develop and test a Web-based surveillance product to characterize men screened for prostate cancer. The system will capture data on the screening results, diagnoses, treatments, and rehabilitation outcomes of patients receiving care at area primary care and urology practices. Additional data will be collected on the patient's knowledge of prostate cancer, risk perception, and screening experience. This study will be completed in the fall of 2004.

Examining Quality of Life

Researchers at the University of North Carolina at Chapel Hill are comparing the health status and health-related quality-of-life outcomes of asymptomatic men whose prostate cancers are detected by screening to the outcomes of men whose cancers are discovered because of symptoms. A complementary cohort study is also being conducted. This study, which involves African-American men and white men from rural and urban areas in North Carolina, is evaluating the impact of race and community environment on treatment choice and quality-of-life outcomes. The project is scheduled for completion by the fall of 2004.

the major racial/ethnic groups. The educational CD-ROM also introduces video components to help present various perspectives on prostate cancer screening held among the medical and public health communities, as well as different conclusions patients might reach about screening after having weighed all of the considerations.

CDC has also created a decision guide for African-American men who are considering a first-time prostate cancer screening test or who want more information about regular screening. *Prostate Cancer Screening: A*

Decision Guide for African Americans helps men make informed decisions about screening by providing them with information about the prostate gland, prostate cancer, and prostate cancer screening. This guide, designed specifically for African Americans, encourages men to decide whether screening is the right choice for them and can be viewed or ordered online at <http://www.cdc.gov/cancer/prostate/index.htm>.

Additional materials developed in 2003 include *Prostate Cancer Screening: A Decision Guide*, which presents a

balanced approach to the pros and cons of prostate cancer screening and allows men, their families, and physicians to make a decision that is right for them; and a Web-based slide presentation, *Screening for Prostate Cancer: Sharing the Decision*, to give primary care physicians information about the potential benefits and risks of prostate cancer screening and how clinicians can help each man make the best choice. Also, CDC will continue to promote and disseminate its informed decision-making materials nationwide.

CDC Partnerships

CDC is providing financial support to help cancer prevention and control programs—operated by state governments and tribes/tribal organizations—implement priority activities relating to the prostate cancer components of their comprehensive cancer control plans. Examples of these activities include

- Arkansas received funding to 1) hold a Consensus Development Meeting to encourage discussion of prostate cancer education, screening, and treatment issues, 2) develop a Prostate Cancer Scientific Symposium to include professional education opportunities and a health fair for the public, and 3) create and implement a public education and awareness campaign to include statewide media.



- The Massachusetts Department of Health is funded to 1) organize two prostate cancer educational conference projects, 2) coordinate and



implement a speakers tour to address living with prostate cancer, and 3) create a shared decision-making guide based on CDC's informed decision-making guide.

- The Michigan Cancer Control Initiative/Prostate Cancer Awareness Program is funded to develop an educational intervention for Hispanic men based on methods shown effective in prior focus group tests, as well as test, produce, and disseminate a booklet for newly diagnosed prostate cancer patients.



States receiving CDC funding in 2004 to support their priority prostate cancer activities include Alabama, Alaska, Colorado, Georgia, Massachusetts, Michigan, New Mexico, Utah, and Washington. CDC and the states recognize that a coordinated, comprehensive approach to cancer prevention and control is essential to maximize the impact of limited resources and most effectively achieve desired outcomes.

The Role of the Public Health Community in Prostate Cancer Control

In December 2000, CDC sought advice from approximately 100 experts concerning the role of public health in prostate cancer prevention and control. Those consulted included medical and public health practitioners, researchers, and representatives from community organizations and voluntary associations. The group explored the role of public health in relation to risk factors, disease burden, primary and secondary preven-

tion, treatment, and quality of life. Discussions focused on four areas of public health practice: surveillance and monitoring, research, services and programs, and communication. The information that emerged from these sessions continues to help guide CDC and its public health partners in activities relating to prostate cancer. A report summarizing the discussions is available at <http://www.cdc.gov/cancer/prostate/index.htm>.

For more information or additional copies of this document, please contact:

Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion
Division of Cancer Prevention and Control
Mail Stop K-64, 4770 Buford Highway, NE, Atlanta, GA 30341-3717
(770) 488-4751 • Voice Information System 1 (888) 842-6355 • Fax (770) 488-4760
cancerinfo@cdc.gov • <http://www.cdc.gov/cancer>